

Meridian Road Signal Timing Project Report

Prepared for:

El Paso County

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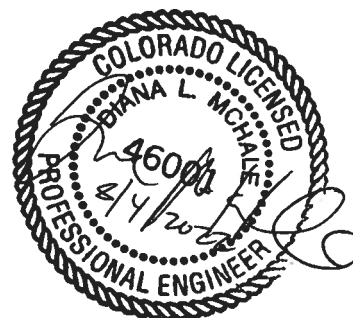
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Meridian Road Signal Retiming Report

1 INTRODUCTION

This technical memorandum covers the signal retiming and coordination efforts of five signals along Meridian Road in Falcon, Colorado by Apex Design dba CONSOR Engineers for El Paso County. Coordination and retiming were conducted on Meridian Road from Woodmen Hills Drive at the northern limit to Rolling Thunder Way at the southern limit and provides coordination with the signal at Meridian Road & US 24. The project limits and study intersections can be seen in Figure 1.

Figure 1. Project Limits and Study Intersections



1.1 Background

Meridian Road is classified as a four-lane principal arterial in the El Paso County *2016 Major Transportation Corridors Plan Update* and is located in Falcon, Colorado. The corridor serves mainly residential and commercial land uses. Meridian Road provides access to US-24 and several other east-west roads that connect the area to Colorado Springs which is located to the southwest. Rural farmland and large-lot residential developments lie to the North, East, and Southeast of the study area.

The intersection of a new traffic signal at Meridian Rd & Eastonville Rd spurred this coordination project, as previously the other four signals were running with uncoordinated operation. Retiming and coordination helps improve operations and progression through the study area. Figure 2 presents the study area location in relation to its surroundings.

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Figure 2. Study Area Location



1.2 Project Method

The project method for the Meridian Road retiming and coordination consisted of:

- Data collection and field observations
 - Utilize the Traffic Technical Memorandum prepared by LSC Transportation Consultants from March 2, 2022 for existing conditions data and timing parameters
 - Conduct before-travel time runs for the AM and PM peak periods
 - Collect field observations of specific traffic issues
- Utilize existing Synchro files to develop new timing plans
 - Conduct cycle length analysis
 - Develop new timing plans utilizing Synchro and Tru-Traffic
- Coordinate with signal technicians to implement new signal timings
 - Conduct fine tuning based on field observations of new signal timings
- Conduct after-travel time runs for AM and PM peak periods
- Report and document the results of the coordination and retiming efforts.

2 EXISTING CONDITIONS

Meridian Road is a four-lane principal arterial that runs north-south through Falcon in El Paso County, Colorado. The corridor runs approximately 1.75-miles through the study area and connects with US 24 to the south, which is an east-west highway.

2.1 Roadway Network And Characteristics

The intersections included as part of this study were:

- **Meridian Road**
 - Woodmen Hills Drive

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- Bent Grass Meadow Drive
- Eastonville Road
- Woodmen Road
- Rolling Thunder Way
- US 24

The study intersections are surrounded mostly by residential and commercial areas. North of Eastonville Road is mostly residential housing, while the commercial areas lie to the south of the intersection. Falcon Middle School is located approximately 1-mile north of Woodmen Hills Drive. Meridian Road & US 24 was coordinated as part of a previous study by CDOT and was not updated as part of this task.

2.1.1 Posted Speed Limits

Posted speed limits from the southern limit to the northern limit on Meridian Road are:

- 35 mph between US 24 and Woodmen Road
- 45 mph between Woodmen Road and approximately 400-feet south of Bent Grass Meadow Drive
- 55 mph from approximately 400-feet south of Bent Grass Meadow Drive to Woodmen Hills Drive

2.1.2 Signal Spacing

Signal spacing from the southern limit to the northern limit on Meridian Road is approximately:

- 1,850 feet between US 24 and Rolling Thunder Way
- 2,150 feet between Rolling Thunder Way and Woodmen Road
- 1,300 feet between Woodmen Road and Eastonville Road
- 2,075 feet between Eastonville Road and Grass Meadow Drive
- 1,975 feet between Grass Meadow Drive and Woodmen Hills Drive

2.1.3 Signal Phasing

Four of the study intersections have four approaches and operate with eight phases. Each of these intersections operates with protected-permitted left turn phasing for each approach. The only exception to this is Woodmen Road which operates with protected-only left turn phasing for all approaches.

Bent Grass Meadows intersection operates with four phases; mainline phasing includes permitted-protected left turn phasing for the northbound approach. This is the only intersection with three approaches.

Woodmen Hills Drive operates with six phases; mainline phasing includes protected-permitted left turn phasing while side streets operate with permissive-only left turn phasing.

2.1.4 Time of Day Schedule

The four existing signals in this project were running free operation with no time of day schedule. The time of day schedule for the Meridian Road & US 24 was 6:00 AM to 9:00 AM for the AM period, 9:00 AM to 1:30 PM for the mid-day period, and 1:30 PM to 7:00 PM for the PM period, and the updated signals were programmed to match. The signals all operated in free from 7:00PM to 6:00 AM.

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2.2 Traffic Data Collection

Turning movement counts (TMC) and data utilized in the Synchro models as part of this study were obtained from the Synchro files associated with the *Traffic Technical Memorandum* by LSC Transportation Consultants from March 2, 2022.

2.3 Travel Time and Delay Observations

Prior to implementation, travel time runs were conducted on Wednesday, April 13, 2022. Data was collected utilizing a GPS tracking application (GPX-Tracker) and then processed in Tru-Traffic. AM travel time runs were conducted between 6:30 AM and 8:00 AM, and PM travel time runs were conducted between 4:30 PM and 5:30 PM. A total of three (3) runs were conducted in each direction, for a total of six (6) runs for each period. Table 2 shows the before travel time run results. The before travel time run results shows that motorists experienced more stopping and stop delay heading southbound through the corridor. Observations in the field indicated high levels of queuing at intersections heading south to US 24. Vehicles making movements onto westbound US 24 were experiencing excessive queuing. It should be noted that these runs were collected before the new signal at Meridian Road & Eastonville was activated, and therefore only included four signals.

Table 1. Before-Travel Time Run Results

<u>Period</u>	<u>Direction</u>	<u>Travel Time (sec)</u>	<u>Stop Delay (sec)</u>	<u>Average Speed (mph)</u>	<u>Stops</u>
AM	Northbound	261	77	25.2	1.7
	Southbound	377	193	17.2	3.0
	All Runs	319	135	21.2	2.3
PM	Northbound	217	30	30.0	0.8
	Southbound	345	166	19.3	3.0
	All Runs	272	89	25.4	1.7

3 CYCLE LENGTH ANALYSIS AND PROPOSED TIMING PLANS

The traffic signal timing software, Synchro, was updated with the current signal timing parameters, and the existing timing at Meridian Road & US 24 that was not updated as part of this project. The cycle length analysis tool in Synchro was used to perform a comparison of measures of effectiveness (MOEs) that are calculated for various cycle lengths. All signals were set to coordinated, and a range of between 90 and 150 seconds were evaluated. The Meridian Road & US 24 timing was locked, therefore held constant. Table 2 shows the comparison of MOEs, while Table 3 shows the proposed cycle lengths for Meridian Road intersections.

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Since this signal timing project includes a locked signal, multiple iterations of the cycle length tool were performed, using different groups of signals to see what worked best. Due to the higher cycle length of 140 seconds at Meridian Road & US 24 in the AM and PM peak, it is recommended to have a cycle length break between US 24 and Woodmen Hills Road.

Table 2. Meridian Road MOE Comparison

		Best		Worst		Meridian Road - Cycle Length Analysis													
# Intersections = 6		Includes Meridian & US 24						Excludes Meridian & US 24											
TOD	Zone/MOE	Existing MOEs	90 sec	100 sec	110 sec	120 sec	130 sec	140 sec	90 sec	95 sec	100 sec	105 sec	110 sec	115 sec	120 sec	125 sec	130 sec		
AM	Meridian Road		120						120										
	Performance Index	185.6	122.9	123.8	125.6	127.1	130.6	133.0	122.6	122.0	123.8	125.3	125.6	126.0	127.1	128.4	130.3		
	Total Delay (hr)	160	98	99	102	103	107	109	98	97	99	101	102	102	103	105	107		
	Stops (#)	9147	8967	8766	8377	8547	8537	8718	8963	8853	8766	8644	8377	8479	8547	8455	8461		
	Stops/Veh (#)	0.51	0.50	0.49	0.47	0.48	0.48	0.49	0.50	0.49	0.49	0.48	0.47	0.47	0.48	0.47	0.47		
	Fuel Consumed (gal)	403	355	354	350	354	356	358	355	354	354	354	354	350	352	354	353	355	
	Avg. Speed (mph)	18	20	20	21	21	21	22	23	23	23	23	23	23	23	22	22		
	# Half Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
# Uncoordinated	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
MD	Meridian Road		100						100										
	Performance Index	150.3	88.6	89.8	92.8	96.3	97.9	100.7	88.6	89.3	89.8	92.8	92.8	94.4	96.4	97.7	97.8		
	Total Delay (hr)	129	68	69	73	76	79	81	68	68	69	72	73	74	76	78	78		
	Stops (#)	7565	7579	7341	7277	7376	6957	6981	7579	7588	7341	7623	7277	7319	7330	7246	6932		
	Stops/Veh (#)	0.45	0.46	0.44	0.44	0.44	0.42	0.42	0.46	0.45	0.44	0.46	0.44	0.44	0.44	0.44	0.42		
	Fuel Consumed (gal)	351	306	304	306	309	304	307	306	306	304	310	306	308	309	309	304		
	Avg. Speed (mph)	20	27	27	26	26	25	25	27	27	27	26	26	26	26	25	25		
	# Half Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
# Uncoordinated	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
PM	Meridian Road		120						120										
	Performance Index	306.1	132.5	130.3	135.0	140.0	142.8	147.4	132.5	130.1	130.3	132.6	135.0	137.2	140.6	140.7	142.8		
	Total Delay (hr)	279	106	104	108	114	117	121	106	104	104	106	108	111	114	115	117		
	Stops (#)	9806	9652	9459	9718	9501	9364	9338	9652	9524	9459	9734	9718	9611	9581	9357	9364		
	Stops/Veh (#)	0.48	0.48	0.47	0.48	0.47	0.46	0.46	0.48	0.47	0.47	0.48	0.48	0.47	0.47	0.46	0.46		
	Fuel Consumed (gal)	515	384	379	387	388	391	394	384	380	379	386	387	387	388	389	391		
	Avg. Speed (mph)	13	24	24	23	23	23	22	24	24	24	24	24	23	23	23	23		
	# Half Cycle	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
# Uncoordinated	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

Table 3. Proposed Cycle Lengths

Period	Meridian & US 24	Meridian Road	
		Existing	Proposed
AM Peak	140	Uncoord	120 sec
Off Peak	100	Uncoord	100 sec
PM Peak	140	Uncoord	120 sec

2.4 Timing Plan Development

Timing plans were developed based on several factors including the cycle length analysis, coordination along US 24, and operations at each intersection. The timing plans and offsets were determined using Synchro and Tru-Traffic to ensure acceptable operations and coordination along both corridors. Some splits were changed based on specific client comments and field observations. For example, priority was given to EBL vehicles from Woodmen Road getting progression through Eastonville Road.

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4 IMPLEMENTATION AND FINE TUNING

The controller databases were programmed on Monday June 27th, and updated signal timings were implemented into controllers on Tuesday, June 28th, 2022. Apex conducted field review of the signals to ensure phasing order and offsets were operating as intended. Field observations were also conducted to determine where fine tuning adjustments should be made. Eastonville Road was programmed by the electrical contractor and updated previously, as part of the County's acceptance of that project.

4.1 FIELD IMPLEMENTATION

During field observations it was observed that all signals were running the appropriate offsets for all peak periods of the day (AM, Off-Peak, PM). Adjustments to the timings were made based on congestion and queuing observations. This included:

- The timings were implemented and checked at Meridian Road & Rolling Thunder Way, however due to the very low volumes currently at this intersection, the controller was set to run with free operation. This will prevent large amounts of delay at the side streets when there is little traffic on Meridian Road. When volumes increase at this intersection, the signal can be switched to run the plans and will be in coordination with the rest of Meridian Road.
- Timing for Meridian Road & Woodmen Road was created off phasing submitted in the Falcon Marketplace Technical Memorandum, Table 3, Global Signal Timing Details from February 2022. During implementation it was discovered that the phasing was rotated, and the coordinated phases were running on Woodmen Road, as opposed to Meridian Road. This was corrected for all timing plans during implementation, the attached timing reports and files have been corrected.

5 EVALUATION

After signal timing implementation, field observations, and fine tuning, travel time runs were conducted to evaluate the impacts of the new signal timing. The travel time runs were conducted on July 7th, 2022 during the same time periods as the before travel time runs. Table 4 shows the measures of effectiveness (MOE) comparison for the before and after travel time runs. Travel time runs and raw results can be seen in Appendix C. The MOEs included:

- Travel time through the corridor
- Stop delay
- Average speed
- Number of stops

Corridor conditions before signal timing implementation showed congestion and delay issues were most associated with the southbound direction. After implementation, all evaluated MOEs were improved for the AM period in both directions. Most notable of these were improvements to stop delay (the delay associated with travel speeds below 5mph), which improved by 68% total.

During the initial runs in the PM period, all evaluated MOEs improved for the southbound direction, however, MOEs were worse for the northbound direction. An offset adjustment at Meridian Rd & Woodmen was made and updated by El Paso County staff on July 21st and removed a long stop that was occurring northbound at Eastonville Road. This update was checked on Tuesday July 26th and updated travel time runs were collected, which are shown in the table below.

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After fine-tuning, the PM period still has improved travel time, delay and stops in the southbound direction, and the northbound direction remained about the same for travel time but increased in stops. This could be partially due to the additional signal at Eastonville but is likely also related to the prioritization of progressing the EBL through Eastonville without stopping, and the travel time runs are recording only the northbound movement along Meridian Road.

Table 4. Travel Time Run Results Comparison

Period	Direction	Travel Time (Sec)			Stop Delay (Sec)			Average Speed (mph)			Stops		
		Before	After	% Change	Before	After	% Change	Before	After	% Change	Before	After	% Change
AM	Northbound	261	179	-31.4%	77	19	-75.3%	25	37	48.0%	1.7	0.5	-70.6%
	Southbound	377	218	-42.2%	193	66	-65.8%	17	30	76.5%	3.0	1.5	-50.0%
	Cumulative	319	199	-37.6%	135	43	-68.1%	21	34	61.9%	2.4	1.0	-58.3%
PM	Northbound	217	220	1.4%	30	41	36.7%	30	29	-3.3%	0.8	2.0	150.0%
	Southbound	345	266	-22.9%	166	103	-38.0%	19	25	31.6%	3.0	2.3	-23.3%
	Cumulative	272	243	-10.7%	89	72	-19.1%	25	27	8.0%	1.7	2.1	23.5%

6 ADDITIONAL CONSIDERATIONS

As part of the regular upkeep and maintenance of coordinated signals on a corridor, some regular maintenance and upkeep is recommended. Items include the following:

- Ensuring that each controller is referencing the central time clock daily and maintaining that sync throughout the day. If controller clocks are experiencing drift of more than 3-5 seconds, the signals will no longer be operating in coordination and drivers will experience delay.
- Periodically make sure detectors are functioning and zones have not shifted.
- It is recommended that signal timing is re-evaluated either after a development is completed or every 3-5 years. El Paso County looks to be experiencing significant growth, and patterns will change as construction projects are completed.
- Since the coordination was removed at Meridian Rd & Rolling Thunder, traffic should be reconsidered as growth occurs, and when progression begins to experience delays along Meridian Road, the signal should be put back into coordination.



















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APPENDIX A

SYNCHRO REPORTS

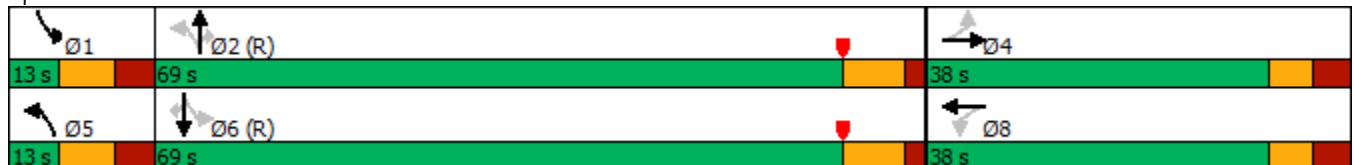
Timings

1: Meridian Rd #1 & Woodmen Hills Dr

										
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	21	17	144	9	25	724	28	44	1481	8
Future Volume (vph)	21	17	144	9	25	724	28	44	1481	8
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	15.5	15.5	15.5	15.5	13.5	22.5	22.5	13.5	22.5	22.5
Total Split (s)	38.0	38.0	38.0	38.0	13.0	69.0	69.0	13.0	69.0	69.0
Total Split (%)	31.7%	31.7%	31.7%	31.7%	10.8%	57.5%	57.5%	10.8%	57.5%	57.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.5	5.5	5.0	5.5	5.5
All-Red Time (s)	3.5	3.5	3.5	3.5	3.5	2.0	2.0	3.5	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		7.5		7.5	8.5	7.5	7.5	8.5	7.5	7.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)		26.0		26.0	71.1	67.9	67.9	73.0	70.9	70.9
Actuated g/C Ratio		0.22		0.22	0.59	0.57	0.57	0.61	0.59	0.59
v/c Ratio		0.39		0.89	0.19	0.41	0.03	0.12	0.76	0.01
Control Delay		20.1		76.3	11.6	6.4	0.1	9.8	23.8	0.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		20.1		76.3	11.6	6.4	0.1	9.8	23.8	0.0
LOS		C		E	B	A	A	A	C	A
Approach Delay		20.1		76.3		6.3			23.3	
Approach LOS		C		E		A			C	

Intersection Summary
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 96 (80%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 22.2
 Intersection LOS: C
 Intersection Capacity Utilization 71.3%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 1: Meridian Rd #1 & Woodmen Hills Dr



Timings
2: Meridian Rd #1 & Bent Grass Meadows Dr

Meridian Implemented 7-19-2022AM.SYN

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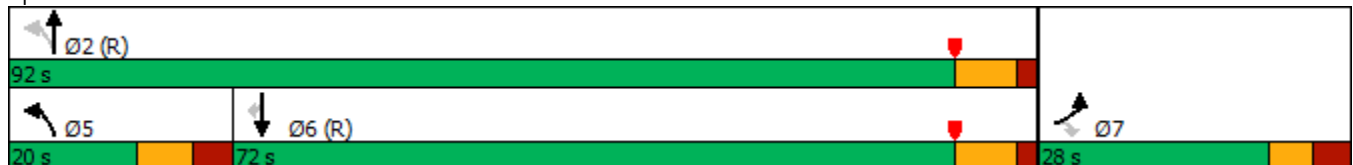


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↗	↗	↖	↑↑	↑↑	↗
Traffic Volume (vph)	171	253	168	606	1455	265
Future Volume (vph)	171	253	168	606	1455	265
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	7		5	2	6	
Permitted Phases		7	2			6
Detector Phase	7	7	5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.5	15.5	13.5	22.5	22.5	22.5
Total Split (s)	28.0	28.0	20.0	92.0	72.0	72.0
Total Split (%)	23.3%	23.3%	16.7%	76.7%	60.0%	60.0%
Yellow Time (s)	4.0	4.0	5.0	5.5	5.5	5.5
All-Red Time (s)	3.5	3.5	3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5	8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effect Green (s)	13.7	13.7	90.3	91.3	71.1	71.1
Actuated g/C Ratio	0.11	0.11	0.75	0.76	0.59	0.59
v/c Ratio	0.46	0.79	0.69	0.24	0.75	0.27
Control Delay	52.5	33.5	36.5	9.3	11.4	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.5	33.5	36.5	9.3	11.4	0.6
LOS	D	C	D	A	B	A
Approach Delay	41.2			15.2	9.7	
Approach LOS	D			B	A	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 5 (4%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 15.7
 Intersection LOS: B
 Intersection Capacity Utilization 75.8%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 2: Meridian Rd #1 & Bent Grass Meadows Dr



Timings

3: Meridian Rd #1 & Eastonville Rd

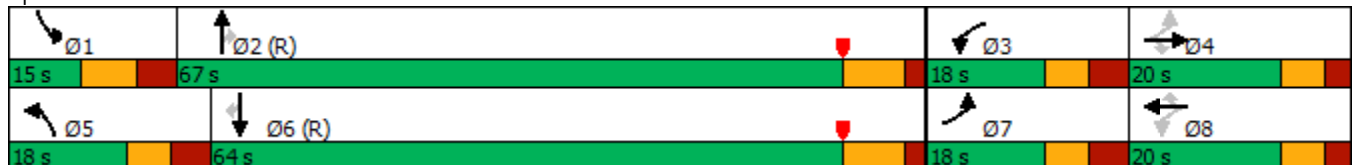
08/01/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	39	89	60	43	80	117	634	54	97	1441	64
Future Volume (vph)	98	39	89	60	43	80	117	634	54	97	1441	64
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	5.0	8.0	8.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	12.5	14.5	14.5	12.5	14.5	14.5	12.5	22.5	22.5	13.5	22.5	22.5
Total Split (s)	18.0	20.0	20.0	18.0	20.0	20.0	18.0	67.0	67.0	15.0	64.0	64.0
Total Split (%)	15.0%	16.7%	16.7%	15.0%	16.7%	16.7%	15.0%	55.8%	55.8%	12.5%	53.3%	53.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.5	5.5	5.0	5.5	5.5
All-Red Time (s)	3.5	2.5	2.5	3.5	2.5	2.5	3.5	2.0	2.0	3.5	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	6.5	5.5	5.5	6.5	5.5	5.5	6.5	6.5	6.5	7.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	20.0	13.0	13.0	20.2	10.9	10.9	13.9	61.5	61.5	12.0	60.6	60.6
Actuated g/C Ratio	0.17	0.11	0.11	0.17	0.09	0.09	0.12	0.51	0.51	0.10	0.50	0.50
v/c Ratio	0.22	0.21	0.29	0.31	0.35	0.35	0.66	0.40	0.07	0.60	0.88	0.08
Control Delay	38.5	53.3	2.1	41.1	56.5	3.1	56.8	12.2	1.4	76.1	25.1	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	38.5	53.3	2.1	41.1	56.5	3.1	56.8	12.2	1.4	76.1	25.1	0.3
LOS	D	D	A	D	E	A	E	B	A	E	C	A
Approach Delay		26.7			28.1			17.9			27.2	
Approach LOS		C			C			B			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 45 (38%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 24.5
 Intersection Capacity Utilization 71.7%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Splits and Phases: 3: Meridian Rd #1 & Eastonville Rd



Timings

4: Meridian Rd & Woodmen Rd

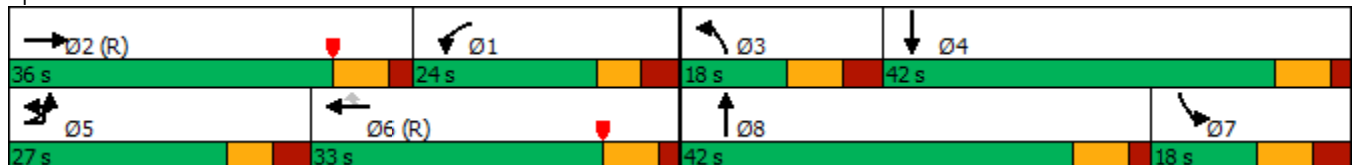
08/03/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	391	221	98	111	530	132	156	282	16	145	816	637
Future Volume (vph)	391	221	98	111	530	132	156	282	16	145	816	637
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	12.5	22.0		12.5	22.0	22.0	13.5	22.0		13.5	22.0	
Total Split (s)	27.0	36.0		24.0	33.0	33.0	18.0	42.0		18.0	42.0	
Total Split (%)	22.5%	30.0%		20.0%	27.5%	27.5%	15.0%	35.0%		15.0%	35.0%	
Yellow Time (s)	4.0	5.0		4.0	5.0	5.0	5.0	5.0		5.0	5.0	
All-Red Time (s)	3.5	2.0		3.5	2.0	2.0	3.5	2.0		3.5	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	6.5	6.0		6.5	6.0	6.0	7.5	6.0		7.5	6.0	
Lead/Lag	Lead	Lead		Lag	Lag	Lag	Lead	Lead		Lag	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	19.3	31.2	120.0	17.5	29.4	29.4	10.2	17.3	120.0	27.9	35.1	120.0
Actuated g/C Ratio	0.16	0.26	1.00	0.15	0.24	0.24	0.08	0.14	1.00	0.23	0.29	1.00
v/c Ratio	0.77	0.26	0.07	0.24	0.66	0.25	0.56	0.58	0.01	0.20	0.89	0.45
Control Delay	58.3	36.6	0.1	46.8	45.9	1.0	65.2	48.2	0.0	51.3	65.4	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	58.3	36.6	0.1	46.8	45.9	1.0	65.2	48.2	0.0	51.3	65.4	0.9
LOS	E	D	A	D	D	A	E	D	A	D	E	A
Approach Delay		43.5			38.4			52.3			38.4	
Approach LOS		D			D			D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 30 (25%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 41.1
 Intersection LOS: D
 Intersection Capacity Utilization 74.5%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 4: Meridian Rd & Woodmen Rd



Timings
5: Meridian Rd & Rolling Thunder Way

Meridian Implemented 7-19-2022AM.SYN

08/01/2022

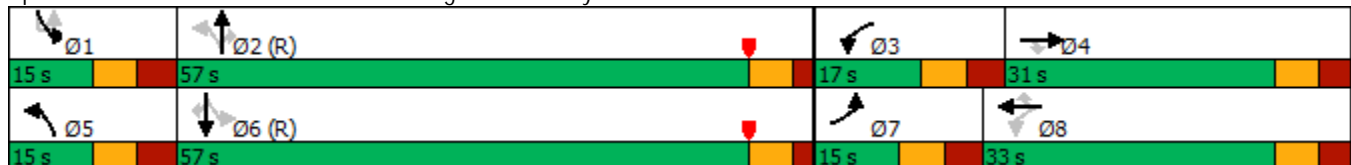


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	↖↗	↑	↖	↖	↑↑	↖	↖	↑↑	↖		↖	↑↑
Traffic Volume (vph)	16	10	104	49	8	5	41	291	14	3	4	525
Future Volume (vph)	16	10	104	49	8	5	41	291	14	3	4	525
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	custom	pm+pt	NA
Protected Phases	7	4		3	8		5	2			1	6
Permitted Phases			4	8		8	2		2	1	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	5.0	8.0	8.0	5.0	12.0	12.0	5.0	5.0	12.0
Minimum Split (s)	12.5	17.0	17.0	12.5	15.0	15.0	12.5	18.0	18.0	12.5	12.5	18.0
Total Split (s)	15.0	31.0	31.0	17.0	33.0	33.0	15.0	57.0	57.0	15.0	15.0	57.0
Total Split (%)	12.5%	25.8%	25.8%	14.2%	27.5%	27.5%	12.5%	47.5%	47.5%	12.5%	12.5%	47.5%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.5	3.0	3.0	3.5	3.0	3.0	3.5	2.0	2.0	3.5	3.5	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	7.5	7.0	7.0	7.5	7.0	7.0	7.5	6.0	6.0		7.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	None	C-Max
Act Effect Green (s)	6.2	8.3	8.3	19.0	15.7	15.7	82.9	82.8	82.8		77.2	74.1
Actuated g/C Ratio	0.05	0.07	0.07	0.16	0.13	0.13	0.69	0.69	0.69		0.64	0.62
v/c Ratio	0.11	0.10	0.50	0.30	0.02	0.02	0.08	0.14	0.01		0.01	0.26
Control Delay	55.3	53.9	10.8	43.7	47.5	0.0	7.2	7.9	0.0		5.0	17.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	55.3	53.9	10.8	43.7	47.5	0.0	7.2	7.9	0.0		5.0	17.2
LOS	E	D	B	D	D	A	A	A	A		A	B
Approach Delay		19.6			40.8			7.5				16.4
Approach LOS		B			D			A				B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 99 (83%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.50
 Intersection Signal Delay: 15.5
 Intersection LOS: B
 Intersection Capacity Utilization 48.3%
 ICU Level of Service A
 Analysis Period (min) 15

Splits and Phases: 5: Meridian Rd & Rolling Thunder Way



Timings
 5: Meridian Rd & Rolling Thunder Way

Meridian Implemented 7-19-2022AM.SYN

08/01/2022



Lane Group	SBR
Lane Configurations	7
Traffic Volume (vph)	22
Future Volume (vph)	22
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	12.0
Minimum Split (s)	18.0
Total Split (s)	57.0
Total Split (%)	47.5%
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	C-Max
Act Effct Green (s)	74.1
Actuated g/C Ratio	0.62
v/c Ratio	0.02
Control Delay	0.0
Queue Delay	0.0
Total Delay	0.0
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Timings
6: Meridian Rd & US 24

Meridian Implemented 7-19-2022AM.SYN

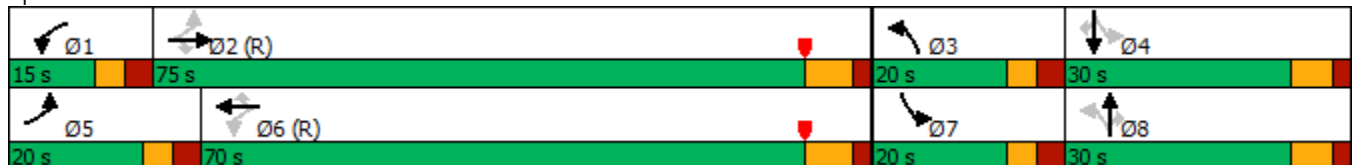
08/01/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	188	370	5	46	722	6	4	208	30	10	255	606
Future Volume (vph)	188	370	5	46	722	6	4	208	30	10	255	606
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	6.0	20.0	20.0	6.0	20.0	20.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	12.0	27.0	27.0	12.0	44.0	44.0	12.0	27.5	27.5	12.0	12.5	12.5
Total Split (s)	20.0	75.0	75.0	15.0	70.0	70.0	20.0	30.0	30.0	20.0	30.0	30.0
Total Split (%)	14.3%	53.6%	53.6%	10.7%	50.0%	50.0%	14.3%	21.4%	21.4%	14.3%	21.4%	21.4%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	7.0	7.0	6.0	7.0	7.0	6.0	6.5	6.5	6.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	83.9	72.2	72.2	71.7	63.5	63.5	41.3	38.3	38.3	43.0	41.0	41.0
Actuated g/C Ratio	0.60	0.52	0.52	0.51	0.45	0.45	0.30	0.27	0.27	0.31	0.29	0.29
v/c Ratio	0.89	0.42	0.01	0.10	0.93	0.01	0.01	0.23	0.06	0.03	0.27	0.92
Control Delay	72.5	23.5	0.0	12.7	54.6	0.0	33.2	41.7	0.2	33.6	39.8	40.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	72.5	23.5	0.0	12.7	54.6	0.0	33.2	41.7	0.2	33.6	39.8	40.5
LOS	E	C	A	B	D	A	C	D	A	C	D	D
Approach Delay		39.7			51.7			36.4			40.2	
Approach LOS		D			D			D			D	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 4 (3%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay: 43.3
 Intersection LOS: D
 Intersection Capacity Utilization 96.8%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 6: Meridian Rd & US 24



Timings

1: Meridian Rd #1 & Woodmen Hills Dr

08/01/2022

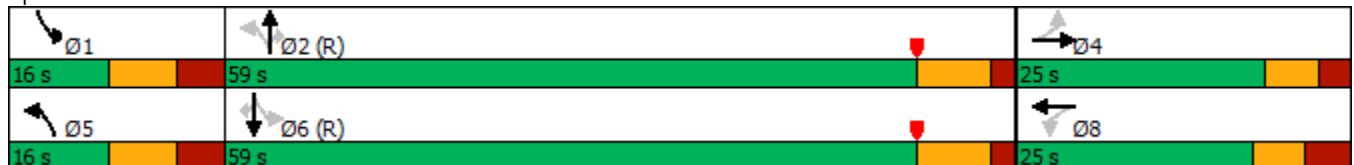


Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↕	↙	↕	↗	↙	↕	↗
Traffic Volume (vph)	3	16	70	9	73	1257	102	18	1210	14
Future Volume (vph)	3	16	70	9	73	1257	102	18	1210	14
Turn Type	Perm	NA	Perm	NA	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		4		8	5	2		1	6	
Permitted Phases	4		8		2		2	6		6
Detector Phase	4	4	8	8	5	2	2	1	6	6
Switch Phase										
Minimum Initial (s)	8.0	8.0	8.0	8.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	14.5	14.5	15.5	15.5	13.5	22.5	22.5	13.5	22.5	22.5
Total Split (s)	25.0	25.0	25.0	25.0	16.0	59.0	59.0	16.0	59.0	59.0
Total Split (%)	25.0%	25.0%	25.0%	25.0%	16.0%	59.0%	59.0%	16.0%	59.0%	59.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	5.0	5.5	5.5	5.0	5.5	5.5
All-Red Time (s)	2.5	2.5	3.5	3.5	3.5	2.0	2.0	3.5	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)		6.5		7.5	8.5	7.5	7.5	8.5	7.5	7.5
Lead/Lag					Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?					Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)		13.3		12.5	71.7	71.2	71.2	67.0	64.7	64.7
Actuated g/C Ratio		0.13		0.12	0.72	0.71	0.71	0.67	0.65	0.65
v/c Ratio		0.28		0.55	0.27	0.53	0.09	0.07	0.57	0.01
Control Delay		17.2		49.9	6.9	8.5	1.1	6.1	14.9	0.0
Queue Delay		0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		17.2		49.9	6.9	8.5	1.1	6.1	14.9	0.0
LOS		B		D	A	A	A	A	B	A
Approach Delay		17.2		49.9		7.9			14.7	
Approach LOS		B		D		A			B	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 40 (40%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.57
 Intersection Signal Delay: 12.5
 Intersection Capacity Utilization 69.9%
 Analysis Period (min) 15
 Intersection LOS: B
 ICU Level of Service C

Splits and Phases: 1: Meridian Rd #1 & Woodmen Hills Dr



Timings
2: Meridian Rd #1 & Bent Grass Meadows Dr

Meridian Implemented 7-19-2022Mid Day.SYN

08/01/2022

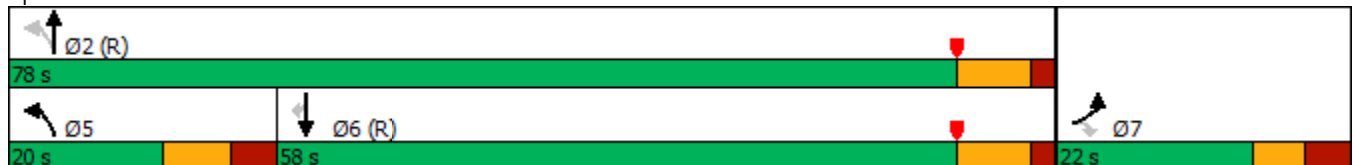


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↗	↗	↖	↑↑	↑↑	↗
Traffic Volume (vph)	202	179	175	1230	1109	224
Future Volume (vph)	202	179	175	1230	1109	224
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	7		5	2	6	
Permitted Phases		7	2			6
Detector Phase	7	7	5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.5	15.5	13.5	22.5	22.5	22.5
Total Split (s)	22.0	22.0	20.0	78.0	58.0	58.0
Total Split (%)	22.0%	22.0%	20.0%	78.0%	58.0%	58.0%
Yellow Time (s)	4.0	4.0	5.0	5.5	5.5	5.5
All-Red Time (s)	3.5	3.5	3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5	8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effect Green (s)	11.9	11.9	72.1	73.1	55.6	55.6
Actuated g/C Ratio	0.12	0.12	0.72	0.73	0.56	0.56
v/c Ratio	0.57	0.56	0.59	0.53	0.61	0.24
Control Delay	47.0	11.9	13.3	4.3	11.2	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	47.0	11.9	13.3	4.3	11.2	1.6
LOS	D	B	B	A	B	A
Approach Delay	30.5			5.5	9.6	
Approach LOS	C			A	A	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 46 (46%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.61
 Intersection Signal Delay: 10.4
 Intersection LOS: B
 Intersection Capacity Utilization 66.6%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 2: Meridian Rd #1 & Bent Grass Meadows Dr



Timings

3: Meridian Rd #1 & Eastonville Rd

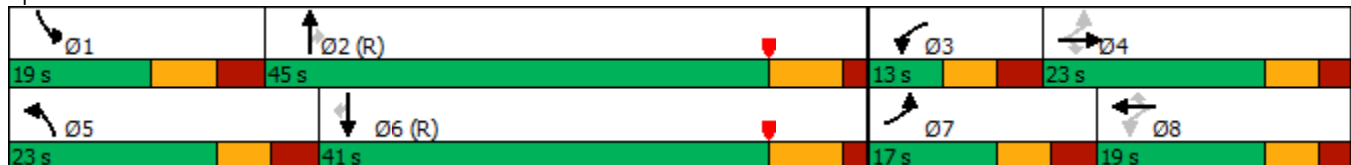
08/01/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	237	105	128	25	65	132	172	533	100	59	678	71
Future Volume (vph)	237	105	128	25	65	132	172	533	100	59	678	71
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	5.0	8.0	8.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	12.5	14.5	14.5	12.5	14.5	14.5	12.5	22.5	22.5	13.5	22.5	22.5
Total Split (s)	17.0	23.0	23.0	13.0	19.0	19.0	23.0	45.0	45.0	19.0	41.0	41.0
Total Split (%)	17.0%	23.0%	23.0%	13.0%	19.0%	19.0%	23.0%	45.0%	45.0%	19.0%	41.0%	41.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.5	5.5	5.0	5.5	5.5
All-Red Time (s)	3.5	2.5	2.5	3.5	2.5	2.5	3.5	2.0	2.0	3.5	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	6.5	5.5	5.5	6.5	5.5	5.5	6.5	6.5	6.5	7.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	25.2	19.9	19.9	16.2	10.7	10.7	15.4	46.1	46.1	9.6	38.4	38.4
Actuated g/C Ratio	0.25	0.20	0.20	0.16	0.11	0.11	0.15	0.46	0.46	0.10	0.38	0.38
v/c Ratio	0.42	0.31	0.28	0.12	0.38	0.41	0.69	0.36	0.13	0.37	0.54	0.10
Control Delay	30.9	38.6	1.7	28.2	46.5	4.5	72.3	6.1	0.7	58.1	18.5	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	30.9	38.6	1.7	28.2	46.5	4.5	72.3	6.1	0.7	58.1	18.5	0.9
LOS	C	D	A	C	D	A	E	A	A	E	B	A
Approach Delay		24.7			19.5			19.6			19.8	
Approach LOS		C			B			B			B	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 89 (89%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.69
 Intersection Signal Delay: 20.7
 Intersection LOS: C
 Intersection Capacity Utilization 57.1%
 ICU Level of Service B
 Analysis Period (min) 15

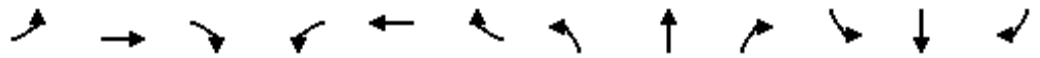
Splits and Phases: 3: Meridian Rd #1 & Eastonville Rd



Timings

4: Meridian Rd & Woodmen Rd

08/03/2022

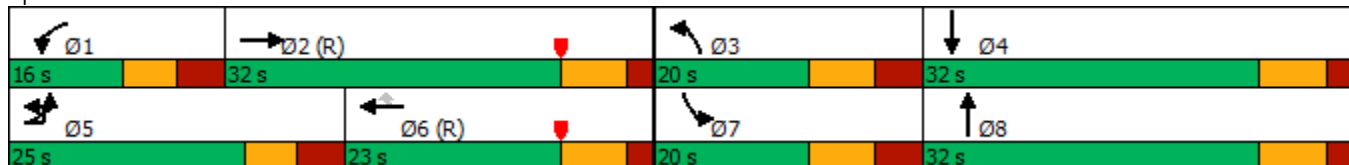


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑	↗	↔↔	↑↑	↗
Traffic Volume (vph)	387	244	94	107	368	77	202	341	22	152	385	355
Future Volume (vph)	387	244	94	107	368	77	202	341	22	152	385	355
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	12.5	22.0		12.5	22.0	22.0	13.5	22.0		13.5	22.0	
Total Split (s)	25.0	32.0		16.0	23.0	23.0	20.0	32.0		20.0	32.0	
Total Split (%)	25.0%	32.0%		16.0%	23.0%	23.0%	20.0%	32.0%		20.0%	32.0%	
Yellow Time (s)	4.0	5.0		4.0	5.0	5.0	5.0	5.0		5.0	5.0	
All-Red Time (s)	3.5	2.0		3.5	2.0	2.0	3.5	2.0		3.5	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	6.5	6.0		6.5	6.0	6.0	7.5	6.0		7.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	18.9	33.8	100.0	9.7	24.7	24.7	11.8	19.6	100.0	10.8	18.7	100.0
Actuated g/C Ratio	0.19	0.34	1.00	0.10	0.25	0.25	0.12	0.20	1.00	0.11	0.19	1.00
v/c Ratio	0.71	0.24	0.07	0.35	0.46	0.14	0.57	0.56	0.02	0.44	0.63	0.24
Control Delay	44.3	25.9	0.1	44.6	35.7	0.5	53.5	29.0	0.0	34.3	49.2	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.3	25.9	0.1	44.6	35.7	0.5	53.5	29.0	0.0	34.3	49.2	0.3
LOS	D	C	A	D	D	A	D	C	A	C	D	A
Approach Delay		32.4			32.5			36.6			27.2	
Approach LOS		C			C			D			C	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.71
 Intersection Signal Delay: 31.7
 Intersection LOS: C
 Intersection Capacity Utilization 63.5%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 4: Meridian Rd & Woodmen Rd



Timings
5: Meridian Rd & Rolling Thunder Way

Meridian Implemented 7-19-2022Mid Day.SYN

08/01/2022

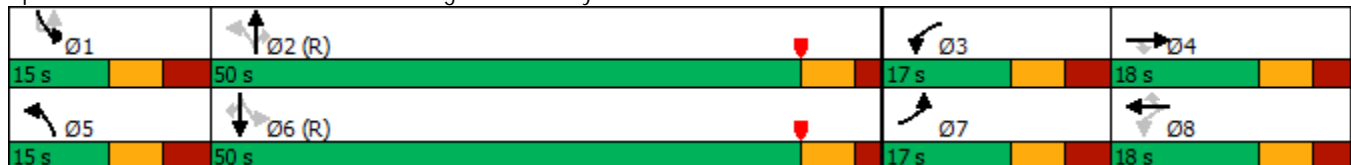


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	↖↖	↑	↗	↖	↑↑	↗	↖	↑↑	↗		↖	↑↑
Traffic Volume (vph)	39	24	80	26	24	38	76	643	20	27	23	477
Future Volume (vph)	39	24	80	26	24	38	76	643	20	27	23	477
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	custom	pm+pt	NA
Protected Phases	7	4		3	8		5	2			1	6
Permitted Phases			4	8		8	2		2	1	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	5.0	8.0	8.0	5.0	12.0	12.0	5.0	5.0	12.0
Minimum Split (s)	12.5	17.0	17.0	12.5	15.0	15.0	12.5	18.0	18.0	12.5	12.5	18.0
Total Split (s)	17.0	18.0	18.0	17.0	18.0	18.0	15.0	50.0	50.0	15.0	15.0	50.0
Total Split (%)	17.0%	18.0%	18.0%	17.0%	18.0%	18.0%	15.0%	50.0%	50.0%	15.0%	15.0%	50.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.5	3.0	3.0	3.5	3.0	3.0	3.5	2.0	2.0	3.5	3.5	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	7.5	7.0	7.0	7.5	7.0	7.0	7.5	6.0	6.0		7.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	None	C-Max
Act Effect Green (s)	6.3	8.1	8.1	11.7	8.3	8.3	66.2	63.1	63.1		64.8	62.4
Actuated g/C Ratio	0.06	0.08	0.08	0.12	0.08	0.08	0.66	0.63	0.63		0.65	0.62
v/c Ratio	0.21	0.18	0.29	0.17	0.10	0.15	0.15	0.34	0.02		0.12	0.23
Control Delay	46.3	45.8	2.4	34.0	43.0	1.0	5.5	9.0	0.1		2.5	3.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	46.3	45.8	2.4	34.0	43.0	1.0	5.5	9.0	0.1		2.5	3.3
LOS	D	D	A	C	D	A	A	A	A		A	A
Approach Delay		21.7			22.1			8.4				2.9
Approach LOS		C			C			A				A

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 20 (20%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.34
 Intersection Signal Delay: 8.4
 Intersection Capacity Utilization 56.1%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service B

Splits and Phases: 5: Meridian Rd & Rolling Thunder Way





Lane Group	SBR
Lane Configurations	7
Traffic Volume (vph)	71
Future Volume (vph)	71
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	12.0
Minimum Split (s)	18.0
Total Split (s)	50.0
Total Split (%)	50.0%
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	C-Max
Act Effct Green (s)	62.4
Actuated g/C Ratio	0.62
v/c Ratio	0.07
Control Delay	0.3
Queue Delay	0.0
Total Delay	0.3
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

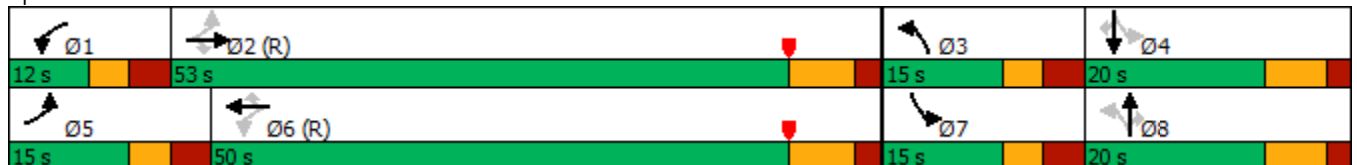
Timings
6: Meridian Rd & US 24

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	306	638	1	57	551	3	1	226	90	18	209	185
Future Volume (vph)	306	638	1	57	551	3	1	226	90	18	209	185
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	6.0	20.0	20.0	6.0	20.0	20.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	16.0	27.0	27.0	12.0	44.0	44.0	12.0	28.0	28.0	12.0	25.0	25.0
Total Split (s)	15.0	53.0	53.0	12.0	50.0	50.0	15.0	20.0	20.0	15.0	20.0	20.0
Total Split (%)	15.0%	53.0%	53.0%	12.0%	50.0%	50.0%	15.0%	20.0%	20.0%	15.0%	20.0%	20.0%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	7.0	7.0	6.0	7.0	7.0	6.0	6.5	6.5	6.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effct Green (s)	67.8	58.3	58.3	55.2	48.1	48.1	16.0	13.1	13.1	18.2	16.1	16.1
Actuated g/C Ratio	0.68	0.58	0.58	0.55	0.48	0.48	0.16	0.13	0.13	0.18	0.16	0.16
v/c Ratio	0.77	0.65	0.00	0.18	0.67	0.00	0.00	0.53	0.27	0.09	0.42	0.49
Control Delay	26.2	21.2	0.0	9.1	25.5	0.0	26.0	44.6	1.9	20.9	30.5	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	26.2	21.2	0.0	9.1	25.5	0.0	26.0	44.6	1.9	20.9	30.5	17.8
LOS	C	C	A	A	C	A	C	D	A	C	C	B
Approach Delay		22.8			23.9			32.4			24.4	
Approach LOS		C			C			C			C	

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 28 (28%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 24.7
 Intersection LOS: C
 Intersection Capacity Utilization 77.2%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 6: Meridian Rd & US 24



Timings
2: Meridian Rd #1 & Bent Grass Meadows Dr

Meridian Implemented 7-19-2022PM.SYN

08/01/2022

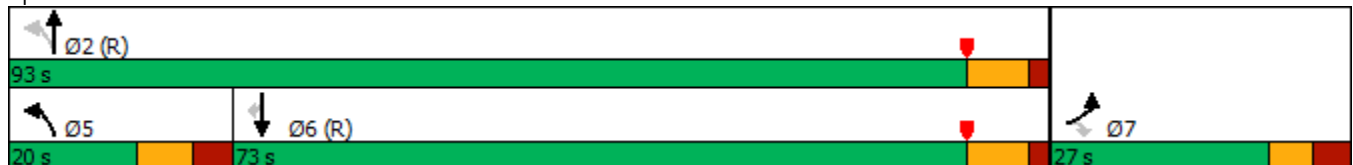


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↖↗	↗	↖	↑↑	↑↑	↗
Traffic Volume (vph)	222	195	220	1394	931	219
Future Volume (vph)	222	195	220	1394	931	219
Turn Type	Prot	Perm	pm+pt	NA	NA	Perm
Protected Phases	7		5	2	6	
Permitted Phases		7	2			6
Detector Phase	7	7	5	2	6	6
Switch Phase						
Minimum Initial (s)	8.0	8.0	5.0	15.0	15.0	15.0
Minimum Split (s)	15.5	15.5	13.5	22.5	22.5	22.5
Total Split (s)	27.0	27.0	20.0	93.0	73.0	73.0
Total Split (%)	22.5%	22.5%	16.7%	77.5%	60.8%	60.8%
Yellow Time (s)	4.0	4.0	5.0	5.5	5.5	5.5
All-Red Time (s)	3.5	3.5	3.5	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.5	7.5	8.5	7.5	7.5	7.5
Lead/Lag			Lead		Lag	Lag
Lead-Lag Optimize?			Yes		Yes	Yes
Recall Mode	None	None	None	C-Max	C-Max	C-Max
Act Effect Green (s)	14.3	14.3	89.7	90.7	72.1	72.1
Actuated g/C Ratio	0.12	0.12	0.75	0.76	0.60	0.60
v/c Ratio	0.63	0.59	0.56	0.55	0.46	0.22
Control Delay	57.3	12.5	8.1	1.7	11.3	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	57.3	12.5	8.1	1.7	11.3	1.1
LOS	E	B	A	A	B	A
Approach Delay	36.3			2.5	9.3	
Approach LOS	D			A	A	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 27 (23%), Referenced to phase 2:NBTL and 6:SBT, Start of Yellow
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 9.7
 Intersection Capacity Utilization 64.2%
 Analysis Period (min) 15
 Intersection LOS: A
 ICU Level of Service C

Splits and Phases: 2: Meridian Rd #1 & Bent Grass Meadows Dr



Timings

3: Meridian Rd #1 & Eastonville Rd

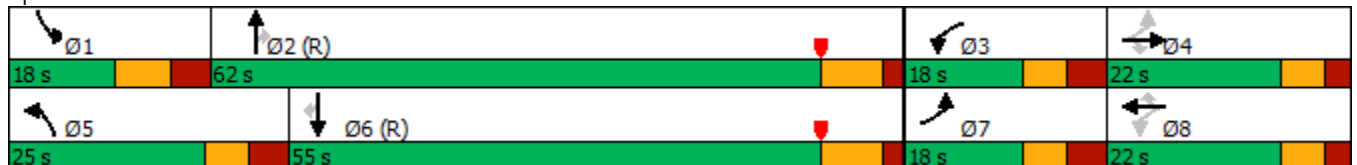
08/01/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	249	110	134	30	65	155	187	1236	121	70	870	77
Future Volume (vph)	249	110	134	30	65	155	187	1236	121	70	870	77
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	5.0	8.0	8.0	5.0	15.0	15.0	5.0	15.0	15.0
Minimum Split (s)	12.5	14.5	14.5	12.5	14.5	14.5	12.5	22.5	22.5	13.5	22.5	22.5
Total Split (s)	18.0	22.0	22.0	18.0	22.0	22.0	25.0	62.0	62.0	18.0	55.0	55.0
Total Split (%)	15.0%	18.3%	18.3%	15.0%	18.3%	18.3%	20.8%	51.7%	51.7%	15.0%	45.8%	45.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	5.5	5.5	5.0	5.5	5.5
All-Red Time (s)	3.5	2.5	2.5	3.5	2.5	2.5	3.5	2.0	2.0	3.5	2.0	2.0
Lost Time Adjust (s)	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
Total Lost Time (s)	6.5	5.5	5.5	6.5	5.5	5.5	6.5	6.5	6.5	7.5	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effect Green (s)	26.4	20.5	20.5	19.3	12.0	12.0	18.5	63.1	63.1	10.4	53.1	53.1
Actuated g/C Ratio	0.22	0.17	0.17	0.16	0.10	0.10	0.15	0.53	0.53	0.09	0.44	0.44
v/c Ratio	0.48	0.38	0.34	0.14	0.41	0.55	0.75	0.73	0.15	0.49	0.60	0.10
Control Delay	40.2	49.9	5.0	35.7	56.4	12.7	77.6	8.7	0.6	70.9	33.5	2.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.2	49.9	5.0	35.7	56.4	12.7	77.6	8.7	0.6	70.9	33.5	2.7
LOS	D	D	A	D	E	B	E	A	A	E	C	A
Approach Delay		32.8			26.9			16.4			33.7	
Approach LOS		C			C			B			C	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 89 (74%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 24.9
 Intersection LOS: C
 Intersection Capacity Utilization 68.4%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 3: Meridian Rd #1 & Eastonville Rd



Timings

4: Meridian Rd & Woodmen Rd

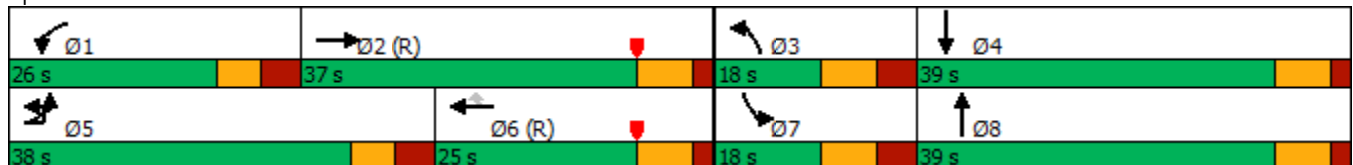
08/03/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	649	382	86	203	437	159	257	736	90	250	534	311
Future Volume (vph)	649	382	86	203	437	159	257	736	90	250	534	311
Turn Type	Prot	NA	Free	Prot	NA	Perm	Prot	NA	Free	Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases			Free			6			Free			Free
Detector Phase	5	2		1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	15.0		5.0	15.0	15.0	5.0	15.0		5.0	15.0	
Minimum Split (s)	12.5	22.0		12.5	22.0	22.0	13.5	22.0		13.5	22.0	
Total Split (s)	38.0	37.0		26.0	25.0	25.0	18.0	39.0		18.0	39.0	
Total Split (%)	31.7%	30.8%		21.7%	20.8%	20.8%	15.0%	32.5%		15.0%	32.5%	
Yellow Time (s)	4.0	5.0		4.0	5.0	5.0	5.0	5.0		5.0	5.0	
All-Red Time (s)	3.5	2.0		3.5	2.0	2.0	3.5	2.0		3.5	2.0	
Lost Time Adjust (s)	-1.0	-1.0		-1.0	-1.0	-1.0	-1.0	-1.0		-1.0	-1.0	
Total Lost Time (s)	6.5	6.0		6.5	6.0	6.0	7.5	6.0		7.5	6.0	
Lead/Lag	Lead	Lag		Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max	C-Max	None	None		None	None	
Act Effct Green (s)	29.0	38.1	120.0	13.8	22.9	22.9	10.5	31.6	120.0	10.5	31.6	120.0
Actuated g/C Ratio	0.24	0.32	1.00	0.12	0.19	0.19	0.09	0.26	1.00	0.09	0.26	1.00
v/c Ratio	0.84	0.37	0.06	0.55	0.69	0.34	0.92	0.85	0.06	0.91	0.62	0.21
Control Delay	53.2	33.7	0.1	55.1	52.5	2.3	82.4	46.4	0.1	74.4	57.0	0.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	53.2	33.7	0.1	55.1	52.5	2.3	82.4	46.4	0.1	74.4	57.0	0.3
LOS	D	C	A	E	D	A	F	D	A	E	E	A
Approach Delay		42.5			43.2			51.1			44.9	
Approach LOS		D			D			D			D	

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 100 (83%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 45.5
 Intersection LOS: D
 Intersection Capacity Utilization 79.7%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 4: Meridian Rd & Woodmen Rd



Timings
5: Meridian Rd & Rolling Thunder Way

Meridian Implemented 7-19-2022PM.SYN

08/01/2022

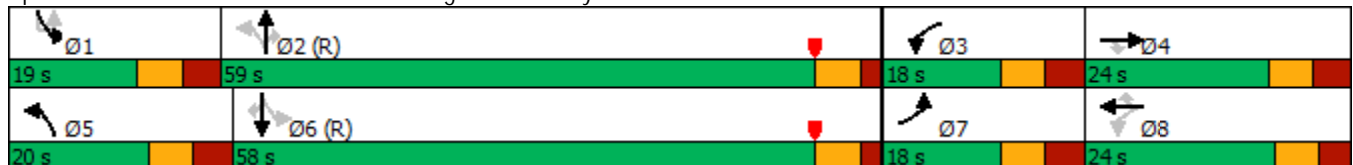


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBU	SBL	SBT
Lane Configurations	↖↖	↑	↗	↖	↑↑	↗	↖	↑↑	↗		↖	↑↑
Traffic Volume (vph)	53	22	85	54	42	24	99	657	59	42	20	380
Future Volume (vph)	53	22	85	54	42	24	99	657	59	42	20	380
Turn Type	Prot	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	custom	pm+pt	NA
Protected Phases	7	4		3	8		5	2			1	6
Permitted Phases			4	8		8	2		2	1	6	
Detector Phase	7	4	4	3	8	8	5	2	2	1	1	6
Switch Phase												
Minimum Initial (s)	5.0	8.0	8.0	5.0	8.0	8.0	5.0	12.0	12.0	5.0	5.0	12.0
Minimum Split (s)	12.5	17.5	17.5	12.5	15.0	15.0	12.5	18.0	18.0	12.5	12.5	18.0
Total Split (s)	18.0	24.0	24.0	18.0	24.0	24.0	20.0	59.0	59.0	19.0	19.0	58.0
Total Split (%)	15.0%	20.0%	20.0%	15.0%	20.0%	20.0%	16.7%	49.2%	49.2%	15.8%	15.8%	48.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	3.5	3.5	3.5	3.5	3.0	3.0	3.5	2.0	2.0	3.5	3.5	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	7.5	7.5	7.5	7.5	7.0	7.0	7.5	6.0	6.0		7.5	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	None	C-Max
Act Effect Green (s)	7.1	8.2	8.2	17.4	10.2	10.2	78.1	73.1	73.1		74.7	69.7
Actuated g/C Ratio	0.06	0.07	0.07	0.14	0.08	0.08	0.65	0.61	0.61		0.62	0.58
v/c Ratio	0.31	0.21	0.39	0.36	0.20	0.12	0.17	0.33	0.06		0.14	0.21
Control Delay	57.7	57.0	5.3	44.7	52.4	0.9	7.9	13.8	0.1		1.3	1.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay	57.7	57.0	5.3	44.7	52.4	0.9	7.9	13.8	0.1		1.3	1.4
LOS	E	E	A	D	D	A	A	B	A		A	A
Approach Delay		29.9			38.7			12.1				1.3
Approach LOS		C			D			B				A

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 106 (88%), Referenced to phase 2:NBTL and 6:SBTL, Start of Yellow
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.39
 Intersection Signal Delay: 13.1
 Intersection LOS: B
 Intersection Capacity Utilization 56.5%
 ICU Level of Service B
 Analysis Period (min) 15

Splits and Phases: 5: Meridian Rd & Rolling Thunder Way



Timings
 5: Meridian Rd & Rolling Thunder Way

Meridian Implemented 7-19-2022PM.SYN

08/01/2022



Lane Group	SBR
Lane Configurations	7
Traffic Volume (vph)	50
Future Volume (vph)	50
Turn Type	Perm
Protected Phases	
Permitted Phases	6
Detector Phase	6
Switch Phase	
Minimum Initial (s)	12.0
Minimum Split (s)	18.0
Total Split (s)	58.0
Total Split (%)	48.3%
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	0.0
Total Lost Time (s)	6.0
Lead/Lag	Lag
Lead-Lag Optimize?	Yes
Recall Mode	C-Max
Act Effct Green (s)	69.7
Actuated g/C Ratio	0.58
v/c Ratio	0.06
Control Delay	0.1
Queue Delay	0.0
Total Delay	0.1
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

Timings
6: Meridian Rd & US 24

Meridian Implemented 7-19-2022PM.SYN

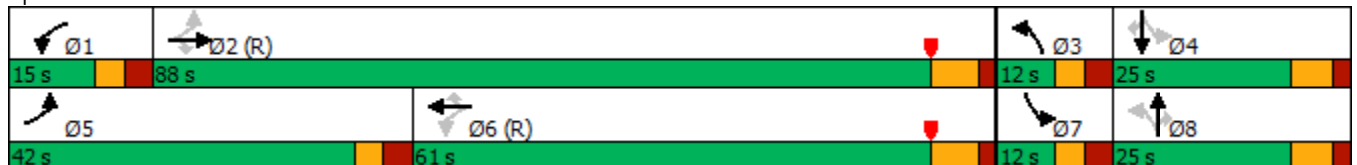
08/01/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	385	605	1	51	492	3	1	433	85	17	241	247
Future Volume (vph)	385	605	1	51	492	3	1	433	85	17	241	247
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	2	1	6	6	3	8	8	7	4	4
Switch Phase												
Minimum Initial (s)	6.0	20.0	20.0	6.0	20.0	20.0	6.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	12.0	27.0	27.0	12.0	44.0	44.0	12.0	28.0	28.0	12.0	12.5	12.5
Total Split (s)	42.0	88.0	88.0	15.0	61.0	61.0	12.0	25.0	25.0	12.0	25.0	25.0
Total Split (%)	30.0%	62.9%	62.9%	10.7%	43.6%	43.6%	8.6%	17.9%	17.9%	8.6%	17.9%	17.9%
Yellow Time (s)	3.0	5.0	5.0	3.0	5.0	5.0	3.0	4.5	4.5	3.0	4.5	4.5
All-Red Time (s)	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0	3.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.0	7.0	7.0	6.0	7.0	7.0	6.0	6.5	6.5	6.0	6.5	6.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Act Effect Green (s)	98.7	87.2	87.2	76.0	68.1	68.1	25.7	21.6	21.6	28.1	26.4	26.4
Actuated g/C Ratio	0.70	0.62	0.62	0.54	0.49	0.49	0.18	0.15	0.15	0.20	0.19	0.19
v/c Ratio	0.78	0.58	0.00	0.14	0.59	0.00	0.00	0.86	0.24	0.14	0.42	0.54
Control Delay	20.6	19.3	0.0	10.6	31.8	0.0	43.0	74.2	1.4	45.7	52.7	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.6	19.3	0.0	10.6	31.8	0.0	43.0	74.2	1.4	45.7	52.7	9.8
LOS	C	B	A	B	C	A	D	E	A	D	D	A
Approach Delay		19.8			29.7			62.3			31.5	
Approach LOS		B			C			E			C	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 99 (71%), Referenced to phase 2:EBTL and 6:WBTL, Start of Yellow
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 32.7
 Intersection LOS: C
 Intersection Capacity Utilization 77.6%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 6: Meridian Rd & US 24



Meridian Road Signal Retiming Report

APPENDIX B

CONTROLLER SHEETS

Omni eX v1.4 - Unit & Phase Configuration



Agency: _____
 Location: Meridian Road & Woodmen Hills Dr
 System ID: _____

DATE PREPARED: 5/4/2022 By: DLM
 DATE IMPLEMENTED: _____ By: _____

1.2 Unit Setup	
Auto PED Clr	
Red Revert	
Min Yellow	
TX Diamond	
Diamond Type	

1.4 Channel Setup (1-16)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Type																
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

B.3 System Information	
System Id	
Name	
Location	

1.3 Startup	
Start-Up Phases	
Next Phase	
Flash	
All Red	
Start Veh Call	
Start Ped Call	

1.4 Channel Setup (17-32)																
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Type																
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

5.1 Coordination Constants	
Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	Begin Yellow
No Early Return	Disable
Sync Ref Time	0
Operational Mode	

2.4 Phase Concurrency																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 1																
Phase 2																
Phase 3																
Phase 4																
Phase 5																
Phase 6																
Phase 7																
Phase 8																
Phase 9																
Phase 10																
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enabled	x	x		x	x	x		x								
Ring1	x	x		x												
Ring2					x	x		x								
Ring3																
Ring4																

Phase Diagram





Agency: _____ Date Prepared: _____ By: _____
 Location: _____ Date Implemented: _____ By: _____
 System ID: _____

2.3 Phase Sequence 1	
Ring 1	1,2,4
Ring 2	5,6,8
Ring 3	
Ring 4	

2.3 Phase Sequence 9	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

Note: Phases 10 through 16 are entered as O,A,B,C,D,E,F

2.3 Phase Sequence 2	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 10	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 11	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16	
Ring 1	
Ring 2	
Ring 3	
Ring 4	



Omni eX v1.4 - Patterns

Agency: _____
 Location: Meridian Road & Woodmen Hills
 System ID: _____

DATE PREPARED: _____ By: _____
 DATE IMPLEMENTED: _____ By: _____

5.2 Pattern Parameters		1
Cycle Time		120
Offset Time		96
Split		1
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		2
Cycle Time		100
Offset Time		40
Split		2
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		3
Cycle Time		120
Offset Time		37
Split		3
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		4
Cycle Time		
Offset Time		
Split		
Sequence		
Correction Mode		
Maximum Mode		
Force Mode		
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		



Omni eX v1.4 - Day Plans

Agency: _____
Location: Meridian Road & Eastonville Road
System ID: _____

DATE PREPARED: _____
DATE IMPLEMENTED: _____
By: _____
By: _____

6.5 DayPlan 1								
Event#	1	2	3	4	5	6	7	8
Hour	6	9	13	19				
Minute	0	0	30	0				
Action	1	2	3	20				

6.5 DayPlan 1								
Event#	9	10	11	12	13	14	15	16
Hour								
Minute								
Action								

6.5 DayPlan 1								
Event#	17	18	19	20	21	22	23	24
Hour								
Minute								
Action								

6.5 DayPlan 1								
Event#	25	26	27	28	29	30	31	32
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	1	2	3	4	5	6	7	8
Hour	10	19						
Minute	0	0						
Action	2	20						

6.5 DayPlan 2								
Event#	9	10	11	12	13	14	15	16
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	17	18	19	20	21	22	23	24
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	25	26	27	28	29	30	31	32
Hour								
Minute								
Action								



Agency: _____
Location: _____
System ID: _____

Date Prepared: _____ By: _____
Date Implemented: _____ By: _____

6.6 Action Parameters 1	
Pattern	1
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 2	
Pattern	2
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 3	
Pattern	3
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 4	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 5	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 6	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 7	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 8	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 9	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 10	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 11	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 12	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 13	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 14	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 15	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

Omni eX v1.4 - Unit & Phase Configuration



Agency: _____
 Location: Meridian Road & Bent Grass Meadows
 System ID: _____

DATE PREPARED: 5/4/2022 By: DLM
 DATE IMPLEMENTED: _____ By: _____

1.2 Unit Setup	
Auto PED Clr	
Red Revert	
Min Yellow	
TX Diamond	
Diamond Type	

1.4 Channel Setup (1-16)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Type																
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

B.3 System Information	
System Id	
Name	
Location	

5.1 Coordination Constants	
Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	Begin Yellow
No Early Return	Disable
Sync Ref Time	0
Operational Mode	

1.3 Startup	
Start-Up Phases	
Next Phase	
Flash	
All Red	
Start Veh Call	
Start Ped Call	

1.4 Channel Setup (17-32)																
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Type																
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

2.4 Phase Concurrency																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 1																
Phase 2																
Phase 3																
Phase 4																
Phase 5																
Phase 6																
Phase 7																
Phase 8																
Phase 9																
Phase 10																
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enabled		x			x	x	x									
Ring1		x														
Ring2					x	x	x									
Ring3																
Ring4																

Phase Diagram





Agency: _____ Date Prepared: _____ By: _____
 Location: _____ Date Implemented: _____ By: _____
 System ID: _____

2.3 Phase Sequence 1	
Ring 1	2
Ring 2	5,6,7
Ring 3	
Ring 4	

2.3 Phase Sequence 9	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

Note: Phases 10 through 16 are entered as O,A,B,C,D,E,F

2.3 Phase Sequence 2	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 10	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 11	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16	
Ring 1	
Ring 2	
Ring 3	
Ring 4	



Omni eX v1.4 - Patterns

Agency: _____
 Location: Meridian Road & Bent Grass Meadows
 System ID: _____

DATE PREPARED: _____ By: _____
 DATE IMPLEMENTED: _____ By: _____

5.2 Pattern Parameters		1
Cycle Time		120
Offset Time		5
Split		1
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		2
Cycle Time		100
Offset Time		46
Split		2
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		3
Cycle Time		120
Offset Time		27
Split		3
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		4
Cycle Time		
Offset Time		
Split		
Sequence		
Correction Mode		
Maximum Mode		
Force Mode		
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		



Omni eX v1.4 - Day Plans

Agency: _____
Location: Meridian Road & Bent Grass Meadows
System ID: _____

DATE PREPARED: _____
DATE IMPLEMENTED: _____
By: _____
By: _____

6.5 DayPlan 1								
Event#	1	2	3	4	5	6	7	8
Hour	6	9	13	19				
Minute	0	0	30	0				
Action	1	2	3	20				

6.5 DayPlan 1								
Event#	9	10	11	12	13	14	15	16
Hour								
Minute								
Action								

6.5 DayPlan 1								
Event#	17	18	19	20	21	22	23	24
Hour								
Minute								
Action								

6.5 DayPlan 1								
Event#	25	26	27	28	29	30	31	32
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	1	2	3	4	5	6	7	8
Hour	10	19						
Minute	0	0						
Action	2	20						

6.5 DayPlan 2								
Event#	9	10	11	12	13	14	15	16
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	17	18	19	20	21	22	23	24
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	25	26	27	28	29	30	31	32
Hour								
Minute								
Action								



Agency: _____
Location: _____
System ID: _____

Date Prepared: _____ By: _____
Date Implemented: _____ By: _____

6.6 Action Parameters 1	
Pattern	1
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 2	
Pattern	2
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 3	
Pattern	3
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 4	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 5	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 6	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 7	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 8	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 9	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 10	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 11	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 12	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 13	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 14	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 15	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

Omni eX v1.4 - Unit & Phase Configuration



Agency: _____
 Location: Meridian Road & Eastonville Road
 System ID: _____

DATE PREPARED: 5/4/2022 By: DLM
 DATE IMPLEMENTED: _____ By: _____

1.2 Unit Setup	
Auto PED Clr	
Red Revert	
Min Yellow	
TX Diamond	
Diamond Type	

1.4 Channel Setup (1-16)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Type																
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

B.3 System Information	
System Id	
Name	
Location	

5.1 Coordination Constants	
Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	Begin Yellow
No Early Return	Disable
Sync Ref Time	0
Operational Mode	

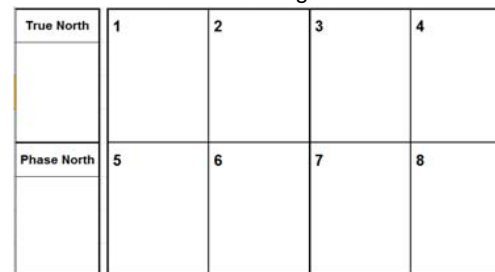
1.3 Startup	
Start-Up Phases	
Next Phase	
Flash	
All Red	
Start Veh Call	
Start Ped Call	

1.4 Channel Setup (17-32)																
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Type																
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

2.4 Phase Concurrency																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 1																
Phase 2																
Phase 3																
Phase 4																
Phase 5																
Phase 6																
Phase 7																
Phase 8																
Phase 9																
Phase 10																
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enabled	x	x	x	x	x	x	x	x								
Ring1	x	x	x	x												
Ring2					x	x	x	x								
Ring3																
Ring4																

Phase Diagram





Agency: _____ Date Prepared: _____ By: _____
Location: _____ Date Implemented: _____ By: _____
System ID: _____

2.3 Phase Sequence 1	
Ring 1	1,2,3,4
Ring 2	5,6,7,8
Ring 3	
Ring 4	

2.3 Phase Sequence 9	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

Note: Phases 10 through 16 are entered as O,A,B,C,D,E,F

2.3 Phase Sequence 2	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 10	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 11	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16	
Ring 1	
Ring 2	
Ring 3	
Ring 4	



Omni eX v1.4 - Patterns

Agency: _____
 Location: Meridian Road & Eastonville Road
 System ID: _____

DATE PREPARED: _____ By: _____
 DATE IMPLEMENTED: _____ By: _____

5.2 Pattern Parameters		1
Cycle Time		120
Offset Time		45
Split		1
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		2
Cycle Time		100
Offset Time		89
Split		2
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		3
Cycle Time		120
Offset Time		89
Split		3
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		4
Cycle Time		
Offset Time		
Split		
Sequence		
Correction Mode		
Maximum Mode		
Force Mode		
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		



Omni eX v1.4 - Day Plans

Agency: _____
Location: Meridian Road & Eastonville Road
System ID: _____

DATE PREPARED: _____
DATE IMPLEMENTED: _____
By: _____
By: _____

6.5 DayPlan 1								
Event#	1	2	3	4	5	6	7	8
Hour	6	9	13	19				
Minute	0	0	30	0				
Action	1	2	3	20				

6.5 DayPlan 1								
Event#	9	10	11	12	13	14	15	16
Hour								
Minute								
Action								

6.5 DayPlan 1								
Event#	17	18	19	20	21	22	23	24
Hour								
Minute								
Action								

6.5 DayPlan 1								
Event#	25	26	27	28	29	30	31	32
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	1	2	3	4	5	6	7	8
Hour	10	19						
Minute	0	0						
Action	2	20						

6.5 DayPlan 2								
Event#	9	10	11	12	13	14	15	16
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	17	18	19	20	21	22	23	24
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	25	26	27	28	29	30	31	32
Hour								
Minute								
Action								



Agency: _____
Location: _____
System ID: _____

Date Prepared: _____
Date Implemented: _____

6.6 Action Parameters 1	
Pattern	1
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 2	
Pattern	2
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 3	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 4	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 5	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 6	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 7	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 8	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 9	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 10	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 11	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 12	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 13	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 14	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 15	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

Omni eX v1.4 - Unit & Phase Configuration



Agency: _____
 Location: Meridian Road & Woodmen Road
 System ID: _____

DATE PREPARED: 5/4/2022 By: DLM
 DATE IMPLEMENTED: _____ By: _____

1.2 Unit Setup	
Auto PED Clr	
Red Revert	
Min Yellow	
TX Diamond	
Diamond Type	

1.4 Channel Setup (1-16)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Type																
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

B.3 System Information	
System Id	
Name	
Location	

1.3 Startup	
Start-Up Phases	
Next Phase	
Flash	
All Red	
Start Veh Call	
Start Ped Call	

1.4 Channel Setup (17-32)																
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Type																
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

5.1 Coordination Constants	
Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	Begin Yellow
No Early Return	Disable
Sync Ref Time	0
Operational Mode	

2.4 Phase Concurrency																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 1																
Phase 2																
Phase 3																
Phase 4																
Phase 5																
Phase 6																
Phase 7																
Phase 8																
Phase 9																
Phase 10																
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enabled	x	x	x	x	x	x	x	x								
Ring1	x	x	x	x												
Ring2					x	x	x	x								
Ring3																
Ring4																

Phase Diagram





Agency: _____ Date Prepared: _____ By: _____
 Location: _____ Date Implemented: _____ By: _____
 System ID: _____

2.3 Phase Sequence 1	
Ring 1	1,2,3,4
Ring 2	5,6,7,8
Ring 3	
Ring 4	

2.3 Phase Sequence 9	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

Note: Phases 10 through 16 are entered as O,A,B,C,D,E,F

2.3 Phase Sequence 2	
Ring 1	2,1,3,4
Ring 2	5,6,8,7
Ring 3	
Ring 4	

2.3 Phase Sequence 10	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 11	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16	
Ring 1	
Ring 2	
Ring 3	
Ring 4	



Omni eX v1.4 - Patterns

Agency: _____
Location: Meridian Road & Woodmen Road
System ID: _____

DATE PREPARED: _____ By: _____
DATE IMPLEMENTED: _____ By: _____

5.2 Pattern Parameters		1
Cycle Time		120
Offset Time		30
Split		1
Sequence		2
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		2
Cycle Time		100
Offset Time		52
Split		2
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		3
Cycle Time		120
Offset Time		100
Split		3
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		4
Cycle Time		
Offset Time		
Split		
Sequence		
Correction Mode		
Maximum Mode		
Force Mode		
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		



Omni eX v1.4 - Day Plans

Agency: _____
Location: Meridian Road & Eastonville Road
System ID: _____

DATE PREPARED: _____
DATE IMPLEMENTED: _____
By: _____
By: _____

6.5 DayPlan 1								
Event#	1	2	3	4	5	6	7	8
Hour	6	9	13	19				
Minute	0	0	30	0				
Action	1	2	3	20				

6.5 DayPlan 1								
Event#	9	10	11	12	13	14	15	16
Hour								
Minute								
Action								

6.5 DayPlan 1								
Event#	17	18	19	20	21	22	23	24
Hour								
Minute								
Action								

6.5 DayPlan 1								
Event#	25	26	27	28	29	30	31	32
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	1	2	3	4	5	6	7	8
Hour	10	19						
Minute	0	0						
Action	2	20						

6.5 DayPlan 2								
Event#	9	10	11	12	13	14	15	16
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	17	18	19	20	21	22	23	24
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	25	26	27	28	29	30	31	32
Hour								
Minute								
Action								



Agency: _____
Location: _____
System ID: _____

Date Prepared: _____ By: _____
Date Implemented: _____ By: _____

6.6 Action Parameters 1	
Pattern	1
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 2	
Pattern	2
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 3	
Pattern	3
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 4	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 5	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 6	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 7	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 8	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 9	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 10	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 11	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 12	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 13	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 14	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 15	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	



Omni eX v1.4 - Unit & Phase Configuration

Agency: _____
 Location: Meridian Road & Rolling Thunder
 System ID: _____

DATE PREPARED: 5/4/2022 By: DLM
 DATE IMPLEMENTED: _____ By: _____

1.2 Unit Setup	
Auto PED Clr	
Red Revert	
Min Yellow	
TX Diamond	
Diamond Type	

1.4 Channel Setup (1-16)																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Type																
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

B.3 System Information	
System Id	
Name	
Location	

1.3 Startup	
Start-Up Phases	
Next Phase	
Flash	
All Red	
Start Veh Call	
Start Ped Call	

1.4 Channel Setup (17-32)																
	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Type																
Source																
Alt 1/2 Hz																
Flsh Red																
Flsh Yel																

5.1 Coordination Constants	
Correction Mode	Shortway
Max Cycles Trans	3
Coord Max Mode	Max Inhibit
Coord Force Mode	Fixed
Perm Strategy	Maximum
Omit Strategy	Minimum
Sync Point	Begin Yellow
No Early Return	Disable
Sync Ref Time	0
Operational Mode	

2.4 Phase Concurrency																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Phase 1																
Phase 2																
Phase 3																
Phase 4																
Phase 5																
Phase 6																
Phase 7																
Phase 8																
Phase 9																
Phase 10																
Phase 11																
Phase 12																
Phase 13																
Phase 14																
Phase 15																
Phase 16																

2.4 Phase Enable and Rings																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Enabled	x	x	x	x	x	x	x	x								
Ring1	x	x	x	x												
Ring2					x	x	x	x								
Ring3																
Ring4																

Phase Diagram





Agency: _____ Date Prepared: _____ By: _____
Location: _____ Date Implemented: _____ By: _____
System ID: _____

2.3 Phase Sequence 1	
Ring 1	1,2,3,4
Ring 2	5,6,7,8
Ring 3	
Ring 4	

2.3 Phase Sequence 9	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

Note: Phases 10 through 16 are entered as O,A,B,C,D,E,F

2.3 Phase Sequence 2	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 10	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 3	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 11	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 4	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 12	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 5	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 13	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 6	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 14	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 7	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 15	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 8	
Ring 1	
Ring 2	
Ring 3	
Ring 4	

2.3 Phase Sequence 16	
Ring 1	
Ring 2	
Ring 3	
Ring 4	



Omni eX v1.4 - Patterns

Agency: _____
Location: Meridian Road & Rolling Thunder
System ID: _____

DATE PREPARED: _____ **By:** _____
DATE IMPLEMENTED: _____ **By:** _____

5.2 Pattern Parameters		1
Cycle Time		120
Offset Time		99
Split		1
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		2
Cycle Time		100
Offset Time		20
Split		2
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		3
Cycle Time		120
Offset Time		106
Split		3
Sequence		1
Correction Mode		
Maximum Mode		
Force Mode		Fixed
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		

5.2 Pattern Parameters		4
Cycle Time		
Offset Time		
Split		
Sequence		
Correction Mode		
Maximum Mode		
Force Mode		
Perm Strategy		
Omit Strategy		
Early Return		
Texas Diamond		
Max2 Phases		
Phase Timing Set		
Phase Option Set		
Overlap Set		
Veh. Det. Set		
Veh. Det. Diag Set		
Ped. Det. Diag Set		
Priority Set		
Ped Ovlp Set		
Det. Reset		



Omni eX v1.4 - Day Plans

Agency: _____
Location: Meridian Road & Eastonville Road
System ID: _____

DATE PREPARED: _____
DATE IMPLEMENTED: _____
By: _____
By: _____

6.5 DayPlan 1								
Event#	1	2	3	4	5	6	7	8
Hour	6	9	13	19				
Minute	0	0	30	0				
Action	1	2	3	20				

6.5 DayPlan 1								
Event#	9	10	11	12	13	14	15	16
Hour								
Minute								
Action								

6.5 DayPlan 1								
Event#	17	18	19	20	21	22	23	24
Hour								
Minute								
Action								

6.5 DayPlan 1								
Event#	25	26	27	28	29	30	31	32
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	1	2	3	4	5	6	7	8
Hour	10	19						
Minute	0	0						
Action	2	20						

6.5 DayPlan 2								
Event#	9	10	11	12	13	14	15	16
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	17	18	19	20	21	22	23	24
Hour								
Minute								
Action								

6.5 DayPlan 2								
Event#	25	26	27	28	29	30	31	32
Hour								
Minute								
Action								



Agency: _____
Location: _____
System ID: _____

Date Prepared: _____ By: _____
Date Implemented: _____ By: _____

6.6 Action Parameters 1	
Pattern	1
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 2	
Pattern	2
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 3	
Pattern	3
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 4	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 5	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 6	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 7	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 8	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 9	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 10	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 11	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 12	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 13	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 14	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

6.6 Action Parameters 15	
Pattern	
Auxiliary Function	
Special Function	
Special Function	
Detector VOS Log	
Speed Trap Log	
Cycle MOE Log	
Detector Reset	

Meridian Road Signal Retiming Report

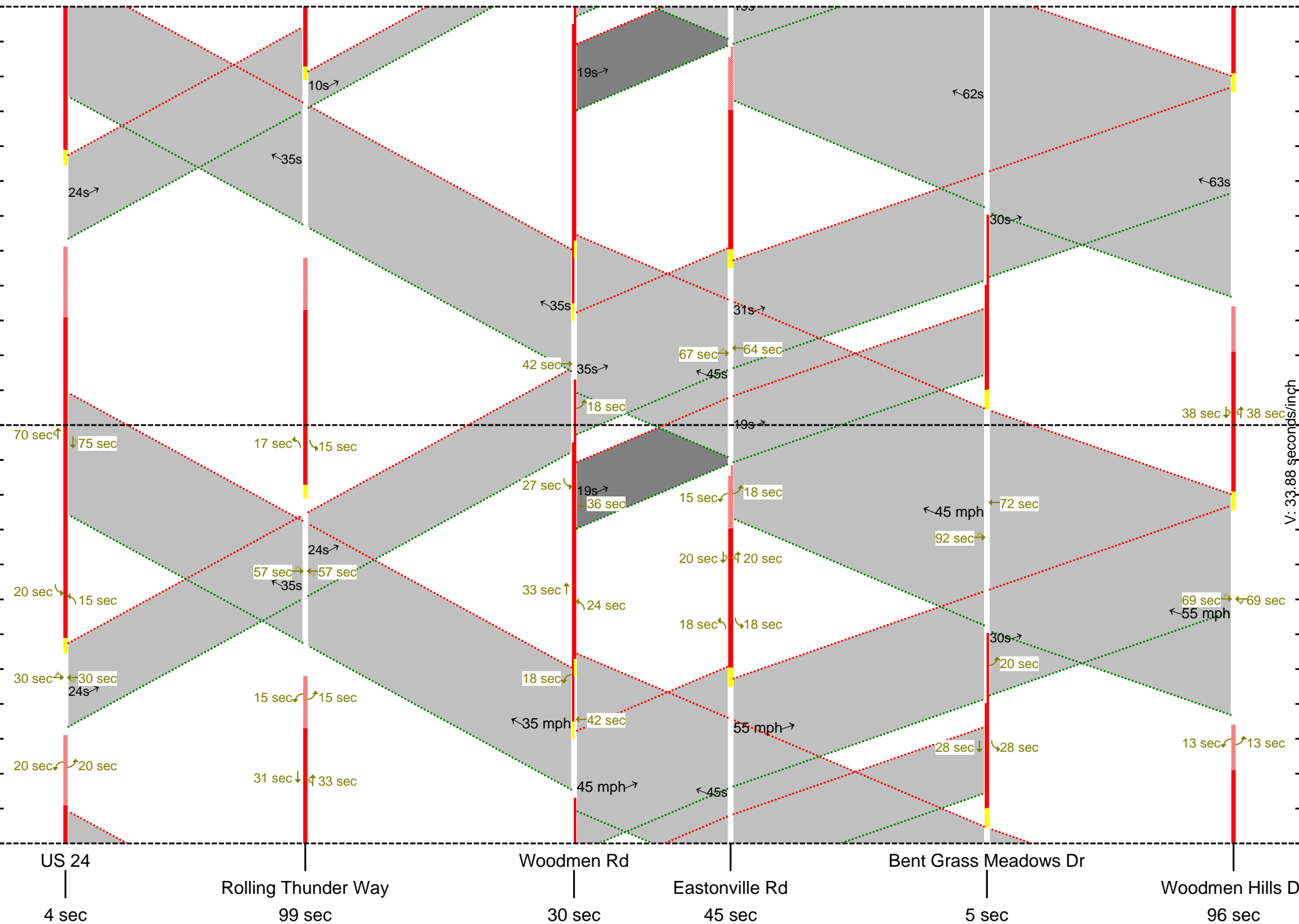
APPENDIX C

TRAVEL TIME RUN REPORTS

120 sec

Meridian Rd Implemented AM Timings

Thu. 8/4/2022 11:22 AM North →



US 24

Rolling Thunder Way

Woodmen Rd

Eastonville Rd

Bent Grass Meadows Dr

Woodmen Hills Dr

4 sec

99 sec

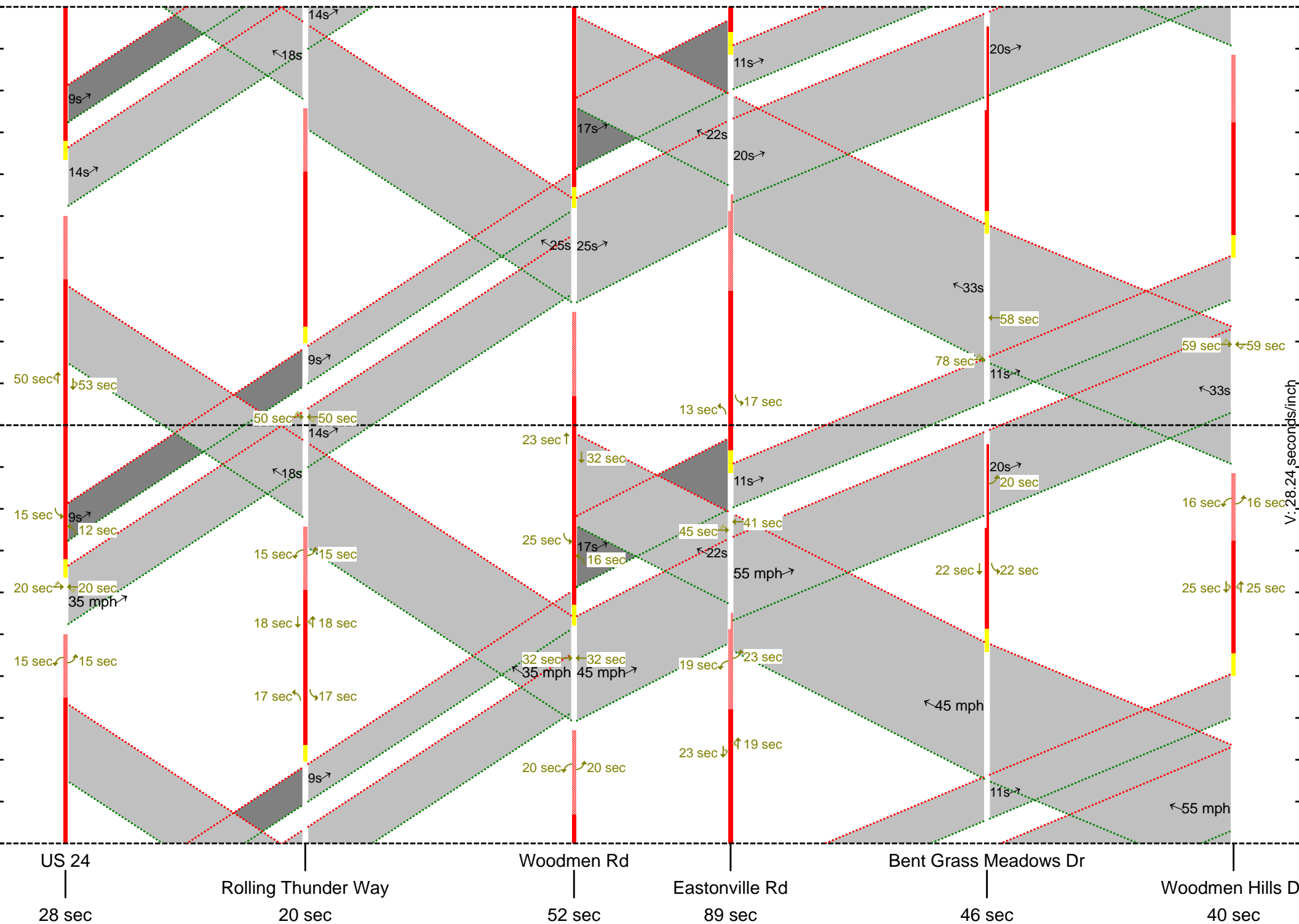
30 sec

45 sec

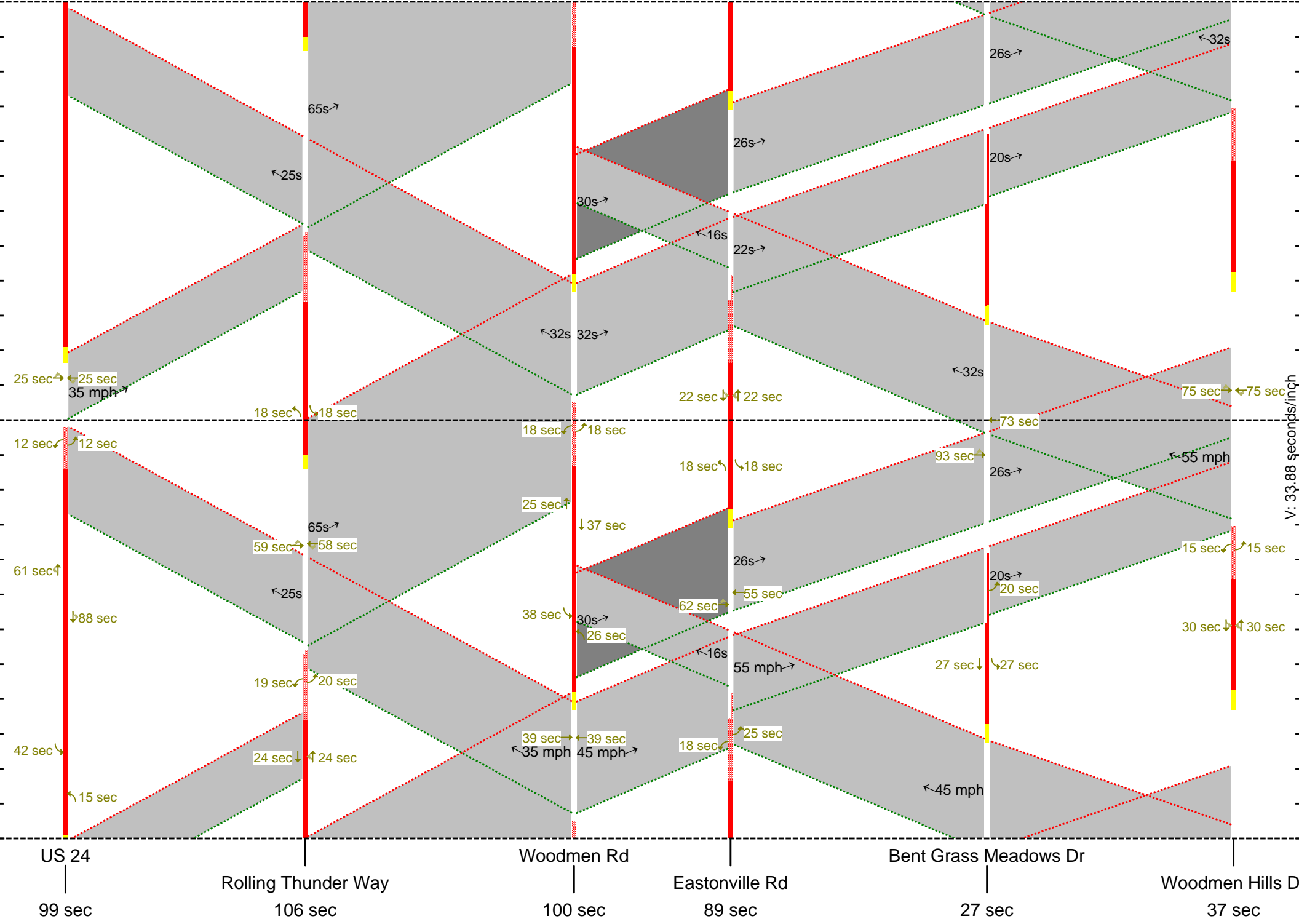
5 sec

96 sec

V: 33.88 seconds/inch



V: 28.24 seconds/inch



V: 33.88 seconds/inch

US 24 Rolling Thunder Way Woodmen Rd Eastonville Rd Bent Grass Meadows Dr Woodmen Hills D

99 sec 106 sec 100 sec 89 sec 27 sec 37 sec

Monday 8/1/2022 2:02:28 PM

Travel Time & Delay Report for Meridian Rd Travel Time Runs

Legend:

CTT:

Summarized Cumulative Travel Time since beginning of Run (seconds)

CStopD:

Summarized Cumulative Stopped Delay since beginning of Run (seconds). The "Stopped Delay" is counted from when the speed drops below 5 mph after exceeding 15 mph until it exceeds 15 mph once again

CAS:

Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

CStops:

Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

Cumulative Summary of runs Northbound from US 24 (#6)

3 Before-type runs, 3 of unverifiable origin, collected Wednesday 4/13/2022 to Wednesday 4/13/2022, over day(s) Wed, with starting times during 7:01:23 AM to 7:40:46 AM

	CTT	CStopD	CAS	CStops
to Woodmen Hills Dr (#1)				
Average Before (n=3)	261	77	25.2	1.7
Std Dev Before (n=3)	56	61	5.1	1.2

Cumulative Summary of runs Southbound from Woodmen Hills Dr (#1)

3 Before-type runs, 3 of unverifiable origin, collected Wednesday 4/13/2022 to Wednesday 4/13/2022, over day(s) Wed, with starting times during 7:10:55 AM to 7:50:19 AM

	CTT	CStopD	CAS	CStops
to US 24 (#6)				
Average Before (n=3)	377	193	17.2	3.0
Std Dev Before (n=3)	50	53	2.5	1.0

Cumulative Summary of all runs, either direction through artery

6 Before-type runs, 6 of unverifiable origin, collected Wednesday 4/13/2022 to Wednesday 4/13/2022, over day(s) Wed, with starting times during 7:06:16 AM to 7:54:49 AM

	CTT	CStopD	CAS	CStops
to End of Artery				

<i>Average Before (n=6)</i>	319	135	21.2	2.3
<i>Std Dev Before (n=6)</i>	80	81	5.6	1.2
Difference	0	0	0.0	0.0
<i>Std Dev Difference</i>	80	81	5.6	1.2
% Difference	0%	0%	0.0%	0.0%

Monday 8/1/2022 2:00:24 PM

Travel Time & Delay Report for Meridian Rd Travel Time Runs

Legend:

CTT:

Summarized Cumulative Travel Time since beginning of Run (seconds)

CStopD:

Summarized Cumulative Stopped Delay since beginning of Run (seconds). The "Stopped Delay" is counted from when the speed drops below 5 mph after exceeding 15 mph until it exceeds 15 mph once again

CAS:

Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

CStops:

Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

Cumulative Summary of runs Northbound from US 24 (#6)

4 After-type runs, 4 of unverifiable origin, collected
Thursday 7/7/2022 to Thursday 7/7/2022, over day(s)
Thu, with starting times during 7:02:12 AM to 7:41:56 AM

	CTT	CStopD	CAS	CStops
to Woodmen Hills Dr (#1)				
Average After (n=4)	179	19	37.0	0.5
Std Dev After (n=4)	43	39	7.8	1.0

Cumulative Summary of runs Southbound from Woodmen Hills Dr (#1)

4 After-type runs, 4 of unverifiable origin, collected
Thursday 7/7/2022 to Thursday 7/7/2022, over day(s)
Thu, with starting times during 7:09:25 AM to 7:48:21 AM

	CTT	CStopD	CAS	CStops
to US 24 (#6)				
Average After (n=4)	218	66	30.2	1.5
Std Dev After (n=4)	40	40	5.0	0.6

Cumulative Summary of all runs, either direction through artery

8 After-type runs, 8 of unverifiable origin, collected
Thursday 7/7/2022 to Thursday 7/7/2022, over day(s)
Thu, with starting times during 7:04:40 AM to 7:50:15 AM

	CTT	CStopD	CAS	CStops
to End of Artery				
Average After (n=8)	199	43	33.6	1.0
Std Dev After (n=8)	44	44	7.1	0.9
Difference	0	0	0.0	0.0
Std Dev Difference	44	44	7.1	0.9
% Difference	N/D	N/D	N/D	N/D

Monday 8/1/2022 2:01:35 PM

Travel Time & Delay Report for Meridian Rd Travel Time Runs

Legend:

CTT:

Summarized Cumulative Travel Time since beginning of Run (seconds)

CStopD:

Summarized Cumulative Stopped Delay since beginning of Run (seconds). The "Stopped Delay" is counted from when the speed drops below 5 mph after exceeding 15 mph until it exceeds 15 mph once again

CAS:

Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTT/CTT

CStops:

Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

Cumulative Summary of runs Northbound from US 24 (#6)

4 Before-type runs, 4 of unverifiable origin, collected Wednesday 4/13/2022 to Wednesday 4/13/2022, over day(s) Wed, with starting times during 4:28:23 PM to 5:19:34 PM

	CTT	CStopD	CAS	CStops
to Woodmen Hills Dr (#1)				
Average Before (n=4)	217	30	30.0	0.8
Std Dev Before (n=4)	35	36	5.2	1.0

Cumulative Summary of runs Southbound from Woodmen Hills Dr (#1)

3 Before-type runs, 3 of unverifiable origin, collected Wednesday 4/13/2022 to Wednesday 4/13/2022, over day(s) Wed, with starting times during 4:35:48 PM to 5:08:56 PM

	CTT	CStopD	CAS	CStops
to US 24 (#6)				
Average Before (n=3)	345	166	19.3	3.0
Std Dev Before (n=3)	78	91	4.6	0.0

Cumulative Summary of all runs, either direction through artery

7 Before-type runs, 7 of unverifiable origin, collected Wednesday 4/13/2022 to Wednesday 4/13/2022, over day(s) Wed, with starting times during 4:31:52 PM to 5:23:10 PM

	CTT	CStopD	CAS	CStops
to End of Artery				

<i>Average Before (n=7)</i>	272	89	25.4	1.7
<i>Std Dev Before (n=7)</i>	86	93	7.3	1.4
Difference	0	0	0.0	0.0
<i>Std Dev Difference</i>	86	93	7.3	1.4
% Difference	0%	0%	0.0%	0.0%

Monday 8/1/2022 1:58:33 PM

Travel Time & Delay Report for Meridian Rd Travel Time Runs

Legend:

CTT:

Summarized Cumulative Travel Time since beginning of Run (seconds)

CStopD:

Summarized Cumulative Stopped Delay since beginning of Run (seconds). The "Stopped Delay" is counted from when the speed drops below 5 mph after exceeding 15 mph until it exceeds 15 mph once again

CAS:

Summarized Cumulative Actual Average Speed since beginning of Run (mph) = CTL/CTT

CStops:

Summarized Cumulative number of Stops in Run. A "Stop" is counted when the speed drops below 5 mph after exceeding 15 mph

Cumulative Summary of runs Northbound from US 24 (#6)

4 After-type runs, 4 of unverifiable origin, collected
Tuesday 7/26/2022 to Tuesday 7/26/2022, over day(s)
Tue, with starting times during 4:32:07 PM to 5:32:47 PM

	CTT	CStopD	CAS	CStops
to Woodmen Hills Dr (#1)				
Average After (n=4)	220	41	29.4	2.0
Std Dev After (n=4)	30	40	3.5	0.0

Cumulative Summary of runs Southbound from Woodmen Hills Dr (#1)

4 After-type runs, 4 of unverifiable origin, collected
Tuesday 7/26/2022 to Tuesday 7/26/2022, over day(s)
Tue, with starting times during 4:38:49 PM to 5:25:58 PM

	CTT	CStopD	CAS	CStops
to US 24 (#6)				
Average After (n=4)	266	103	25.0	2.3
Std Dev After (n=4)	55	55	6.0	0.5

Cumulative Summary of all runs, either direction through artery

8 After-type runs, 8 of unverifiable origin, collected
Tuesday 7/26/2022 to Tuesday 7/26/2022, over day(s)
Tue, with starting times during 4:35:05 PM to 5:36:41 PM

	CTT	CStopD	CAS	CStops
to End of Artery				
Average After (n=8)	243	72	27.2	2.1
Std Dev After (n=8)	48	55	5.1	0.4
Difference	0	0	0.0	0.0
Std Dev Difference	48	55	5.1	0.4
% Difference	N/D	N/D	N/D	N/D